AMENDMENTS IN THE CLAIMS

1. (Currently Amended) A method for classifying a service class for transmission of packet data served in a two-way communication network which supports transmission of packet data having various quality of service (QoS), comprising the steps of:

measuring a total number of packet data for a period of time associated with a classification of service class;

determining a parameter based on whether the measured number of packet data is larger than a threshold value associated with a two-way communication characteristic of the packet data transmission; and

calculating a value used to classify the service class of the packet data [[by]] using the parameter.

2. (Currently Amended) The method ~~for classifying a service class~~ as recited in claim 1, wherein the measuring step is implemented over a forward link and a reverse link.

3. (Currently Amended) The method ~~for classifying a service class~~ as recited in claim 1, wherein the measuring step ~~further~~ comprises:

measuring the total number of packet data transmitted over [[the]] a forward link; and

measuring the total number of packet data transmitted over [[the]] a reverse link;

4. (Currently Amended) The method ~~for classifying a service class~~ as recited in claim 1, wherein the determining step ~~further~~ comprises:

determining that the service class is a symmetric service corresponding to real time data, if the ~~each~~ measured total number is larger than the threshold value; and

determining that the service class is an asymmetric service, if ~~it is not~~ the measured total

number is not larger than the threshold value.

5. (Original) A method for classifying a service class for transmission of packet data in a two-way communication network which supports transmission of packet data having various quality of service (QoS), comprising the steps of:

measuring a number of detected packet data;

dividing a jitter value by the measured number of packet data;

determining a parameter based on whether or not the divided value is larger than a threshold value associated with traffic characteristics of the packet data transmission; and

calculating a value to classify the service class of packet data by using the parameter.

6. (Currently Amended) The method ~~for classifying a service class~~ as recited in claim 5, wherein the steps of measuring and dividing are implemented over a forward link and a reverse link~~, respectively~~.

7. (Currently Amended) The method ~~for classifying a service class~~ as recited in claim 5, wherein the determining step ~~further~~ comprises:

determining that the service class has a ~~short~~ service for a predetermined period of time representing the packet data transmission occurs more than a predetermined number of times, if the divided value is smaller than the threshold value; and

determining that the service class has a ~~long~~ service for a predetermined period of time representing the packet data transmission does not occur more than the predetermined number of times, if the divided value is at least equal to the threshold value ~~it is not~~.

8. (Currently Amended) A method for classifying a service class for transmission of packet data in a two-way communication network which supports transmission of packet data having

various quality of service (QoS), comprising the steps of:

determining whether a first parameter associated with characteristics of the service class identifies [[is]] a symmetric service corresponding real time data or not;

determining whether a second parameter associated with a period of the service class identifies a service for a predetermined period of time representing the packet data transmission occurs more than a predetermined number of times ~~is short~~ or not; and

calculating a value to classify the service class of packet data [[by]] using the first and second parameters.

9. (Currently Amended) The method ~~for classifying a service class~~ as recited in claim 8, wherein the step of determining whether the first parameter associated with the characteristics of the service class identifies the symmetric service corresponding to the real time data or not ~~further~~ comprises the steps of:

measuring a total number of packet data for a period of time associated with the classification of service classes; and

determining that the first parameter identifies the symmetric service, when ~~based on whether~~ the measured number of packet data is larger than a threshold value associated with characteristics of the service class.

10. (Currently Amended) The method ~~for classifying a service class~~ as recited in claim 9, wherein the measuring step is implemented over a forward link and a reverse link.

11. (Currently Amended) The method ~~for classifying a service class~~ as recited in claim 8, wherein the step of determining whether the second parameter associated with the period of the service class identifies the service for the predetermined period of time representing the packet data transmission occurs more than the predetermined number of times or not comprises ~~further~~

~~comprising~~ the steps of:

measuring a number of detected packet data;

dividing a jitter value by the measured number of packet data; and

determining that the second parameter identifies ~~short~~the service for the predetermined period of time representing the packet data transmission occurs more than the predetermined number of times, when ~~based on whether or not~~ the divided value is larger than a threshold value associated with the period of the service class.

12. (Currently Amended) The method ~~for classifying a service class~~ as recited in claim 11, wherein the steps of measuring and dividing are implemented over a forward link and a reverse link.

13-14. (Cancelled)

15. (Currently Amended) A service class classifying apparatus for transmission of packet data served in a two-way communication network which supports transmission of packet data having various quality of service (QoS), comprising:

a main processor for measuring a total number of packet data for a period of time associated with a classification of service class, [[and]] for determining a parameter based on whether the measured number of packet data is larger than a threshold value associated with a two-way communication characteristic of the packet data transmission, and for calculating a value used to classify the service class of the packet data by using the determined parameter; and

a switch for routing the packet data traffic.

16. (Original) The service class classifying apparatus as claimed in claim 15, further comprising a selection and distribution unit (SDU) for synchronizing data streams from a plurality

of links, and for transmitting the synchronized data stream to the switch.

17. (Original) The service class classifying apparatus as claimed in claim 15, further comprising a gate way (GW) for supporting transfer of protocol between different networks.

18. (Original) The service class classifying apparatus as claimed in claim 15, wherein said main processor measures the total number of packet data that is transmitted over one of a forward link and a reverse link.

19. (Original) The service class classifying apparatus as claimed in claim 15, wherein said main processor determines whether the service class is symmetric or asymmetric by measuring the total number of packet data.

20. (Original) A service class classifying apparatus for transmission of packet data in a two-way communication network which supports transmission of packet data having various quality of service (QoS), comprising:

a main processor for measuring a number of detected packet data, dividing a jitter value by the measured number of packet data, determining a parameter based on whether or not the divided value is larger than a threshold value associated with traffic characteristics of the packet data transmission, and calculating a value to classify the service class of the packet data by using the determined parameter; and

a switch for determining paths of traffic.

21. (Original) The service class classifying apparatus as claimed in claim 20, wherein the main processor measures the total number of packet data that is transmitted over one of a forward link and a reverse link.

22. (Currently Amended) The service class classifying apparatus as claimed in claim 20, wherein the main processor determines whether the service class ~~has a short period~~ is a service for a predetermined period of time representing the packet data transmission occurs more than a predetermined number of times, if the divided value is smaller than the threshold value and determines that the service class is a service for a predetermined period of time representing the packet data transmission does not occur more than the predetermined number of times, ~~has a long period if it is not~~ if the divided value is at least equal to the threshold.

23. (Original) The service class classifying apparatus as claimed in claim 20, further comprising a gate way (GW) for supporting transfer of protocol between different networks.

24. (Currently Amended) A service class classifying apparatus for transmission of packet data in a two-way communication network which supports transmission of packet data having various quality of service (QoS), comprising:

a main processor for determining whether a first parameter associated with characteristics of the service class is a symmetric service corresponding to real time data or not, ~~and~~ for determining whether a second parameter associated with a period of the service class is a service for a predetermined period of time representing the packet data transmission occurs more than a predetermined number of times ~~short~~ or not, and for calculating a value to classify the service class of packet data [[by]] using the first and second parameters.

25. (Original) The service class classifying apparatus as claimed in claim 24, wherein the main processor further measures a total number of packet data for a period of time associated with the classification of service classes, and determines the first parameter based on whether the measured number of packet data is larger than a threshold value associated with characteristics of

the service class.

26. (Original) The service class classifying apparatus as claimed in claim 24, wherein the main processor further measures the total number of packet data that is transmitted over one of a forward link and a reverse link.

27. (Currently Amended) The service class classifying apparatus as claimed in claim 24, wherein the main processor further measures a number of detected packet data, [[and]] divides a jitter value by the measured number of packet data, and determines the second parameter based on whether or not the divided value is larger than a threshold value associated with the period of the service class.

28. (Original) The classifying service class apparatus as claimed in claim 24, wherein the main processor further measures the total number of packet data that is transmitted over one of over a forward link and a reverse link.